



Halliburton NUS
CORPORATION

993 Old Eagle School Road, Suite 415
Wayne, PA 19087-1710

(610) 971-0900
FAX: (610) 971-9715

C-51-5-6-56

May 17, 1996

Project Number 0986

Mr. Christopher Corbett (3HW24)
United States Environmental Protection Agency
841 Chestnut Street
Philadelphia, Pennsylvania 19107-4431

Reference: ARCS III Program
EPA Contract No. 68-W8-0037

Subject: Field Reconnaissance and Technical Direction Summary
EPA Work Assignment 37-52-3SL9
Keystone Sanitation Landfill Site
Remedial Investigation/Feasibility Study

Dear Mr. Corbett:

This letter serves as a field trip report for the field reconnaissance survey performed by you and Kevin Kilmartin and Robert Good of Halliburton NUS Corporation (HNUS) on May 14, 1996 at the subject site. The purpose of the field trip was to investigate the existence, number, and general condition of monitoring wells in the fields adjacent to the eastern portion of the landfill, and to determine which wells should be sampled to delineate the nature of groundwater flow and the nature and extent of groundwater contamination in this area. This report summarizes the field observations and sampling recommendations that were made during the reconnaissance.

The identification number, depth, construction details, and sampling recommendation for each well are summarized in the attached table. In summary, a total of 58 wells have been identified within the general study area east of the landfill. A total of 50 wells were identified during the reconnaissance. From previous reports and documents, an additional 8 wells have been identified in areas that were not surveyed during the field trip.

You requested that the static water level be measured in all of the wells. As indicated in the attached table, a total of 58 static water-level measurements will be made. Note that two of these wells (K1 and K6) are located within the landfill property fence.

The monitoring wells to be sampled were selected based on their geographic position and relationship to the landfill and the desire to fully delineate any off-site groundwater plume. You have identified a total of 23 monitoring wells to be sampled for full-scan Target Compound List (including dichlorodifluoromethane) and Target Analyte List (including chlorides) parameters. Most of the wells to be sampled were identified by you in the field. In two areas (the C-8 through C-14 series and the K8/K14 area), you asked that HNUS make recommendations for sampling three wells and one well, respectively, based on a review of the historical data. HNUS has completed the data review and made the recommendations as shown in the attached table.

HNUS has surveyed elevation data for all of the wells installed during the Remedial Investigation and all of the "C" series wells. You asked that we contact Buehler-Horn, Inc., to obtain the elevations for the "A" series wells, the "B" series wells, the "PN" series wells, and the off-site "K" series wells. We have



contacted Buchart-Horn, Inc., but as of today we have not yet received these data or been able to confirm that these data are available. In addition, elevation data for monitoring well OW-4 could not be located. HNUS does not know who installed this well. For the purposes of this report, HNUS assumes that these survey data are not available, and estimates that 34 wells will need to be surveyed in order to calculate groundwater elevations.

Please note that these activities represent a growth in scope and are not covered under the current work plan and budget. At your direction, a cost estimate for these activities will be prepared and added to the work plan. HNUS is prepared to perform these field activities upon approval and authorization from EPA.

Please call me if you have any questions or if you would like to discuss this summary further.

Sincerely,

William C. Wentworth / *for*

William C. Wentworth, PG
Project Manager

WCW/dhn

c: Joseph Tralie (EPA Region III)
Garth Glenn (Halliburton NUS)
Leonard Johnson (Halliburton NUS) (without attachment)
Margaret Price (Halliburton NUS) (without attachment)
D. Sanderling (EPA Region II)
cgc



ATTACHMENT I

KEYSTONE SANITATION LANDFILL OFFSITE MONITORING WELLS - EAST OF LANDFILL

Well Characteristics			Task Description		
Well I.D.	Diameter	Depth	Measure SWL	Survey	Sample
A-1	6	140	X	X	
A-2	6	150	X	X	
A-3	6	125	X	X	
A-4	6	120	X	X	X
A-5	6	150	X	X	X
A-6	6	100	X	X	X
B-1	6	100	X	X	X
B-2	6	100	X	X	
B-3	6	100	X	X	
B-4	6	125	X	X	X
B-5	6	100	X	X	X
B-6	6	92	X	X	X
C-1	4	102	X		X
C-2	4	69	X		
C-3	6	122	X		
C-4	4	93	X		
C-5	4	102	X		X
C-6	6	132	X		
C-7	6	122	X		
C-8	6	121	X		
C-9	4	90	X		
C-10	4	142	X		
C-11	6	144	X		
C-12	4	90	X		X
C-13	4	111	X		X
C-14	6	133	X		
A-S	2	48	X		
A-I	2	88	X		
A-D	2	254	X		
B-S	2	38	X		
B-D	2	155	X		
H-S	2	46	X		
H-D	2	152	X		
MW-P	2	91	X		X
OW-4	2	?	X	X	X
PN85-11A	2	35	X	X	X
PN85-11B	2	65	X	X	X
PN85-11C	2	95	X	X	X
PN85-12A	2	20	X	X	X
PN85-12B	2	60	X	X	X
PN85-12C	2	95	X	X	X



ATTACHMENT I
KEYSTONE SANITATION LANDFILL
OFFSITE MONITORING WELLS - EAST OF LANDFILL
Page 2 of 2

Well Characteristics			Task Description		
Well I.D.	Diameter	Depth	Measure SWL	Survey	Sample
PN85-13A	2	55	X	X	X
PN85-13B	2	90	X	X	X
PN85-13C	2	145	X	X	X
PN85-21	?	68	X	X	
PN85-22	?	70	X	X	
K6	?	70	X	X	
K7	?	36	X	X	
K8	?	15	X	X	X
K10	?	47	X	X	
K11	?	65	X	X	
K13	?	25	X	X	
K14	?	40	X	X	
K15	?	60	X	X	
K26	?	68	X	X	
K27	?	70	X	X	
K1 (on site)	6	100	X		
K6 (on site)	2	189	X		
TOTAL			58	34	23